WHAT KIND OF CURRICULUM, PEDAGOGY & QUALIFICATIONS DO WE NEED FOR AN UNCERTAIN FUTURE?

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INTRODUCTION

In a recent paper, Ronald Barnett (2004) called for an 'ontological turn' in curriculum and pedagogy away from a focus on knowledge and skills to a 'pedagogy for human being', which seeks to develop the human qualities and dispositions needed to thrive in an uncertain future. He counter-poses his approach with the 'generic skills' approach, arguing that the latter is a cul-de-sac, because it is premised on certain and knowable skills to navigate an uncertain world. While agreeing with him that generic skills are a dead-end, this paper argues that a 'pedagogy for human being' must be contextualised by a vocation, which means that knowledge and skills are important because they help to develop the human qualities and dispositions sought by Barnett. Unless the notion of vocation is used to ground Barnett's 'ontological turn' in the curriculum, the danger is that the attributes and dispositions he seeks will result in disconnected and fragmented identities, which find expression in market oriented capacities and patterns of consumption (Bernstein, 2000), rather than an intrinsic sense of inner calling, or (as sought by Barnett) an authentic self. I use critical realism to critique Barnett's analysis, draw on Bernstein (2000) to argue against decontextualised notions of 'trainability', offer Dewey's (1966 (1916)) notion of a vocation as an alternative, and Young (2003) to argue for an alternative model of qualifications and curriculum.

BARNETT'S CALL FOR A MODE 3 KNOWLEDGE

Barnett draws on concepts of reflexive modernity to argue that the process of change in late modernity is distinguished from change in earlier eras "by its character, its intensity, its felt impact" (Barnett, 2004: 248). While I think that perhaps he goes beyond the concept of reflexive modernisation in arguing that the world is radically unknowable under conditions of 'super-complexity', his argument has much that is familiar. The pace of change is accelerating, and perpetual and pervasive change results in anxiety and stress, and "an inner sense of a destabilized world. It is a destabilization that arises from a personal sense that we never can come into a stable relationship with the world" (Barnett, 2004: 251). One must choose between multiple descriptions of the world, and know at the same time that these choices are fallible, open to challenge, and likely to change: "Our hold on the world is now always fragile" (Barnett, 2004: 251). This means that there is always an 'epistemological gap' between our knowledge of the world and our knowing that we must act in the world. In other words, we must act even in the face of uncertainty, because certainty is not possible, and we need to develop the confidence and capacity to do so.

Constructing our identities is more problematic than ever before. As change in the world is now a fluid and continual process, so too is the basis of our identities. As the external moorings of identity slip away from us, individuals must find a new basis for being in the world, and Barnett says they must find the source in themselves. Consequently, he argues, the world order is one "which is characterized by ontological dispositions" (Barnett, 2004: 248). This has implications for education. While Barnett is focussing on higher education – to the extent that his argument is valid – I think it applies to vocational education and training (VET) as well. The basis of Barnett's ontological turn in, and the outcomes sought from, curriculum and pedagogy is 'being-for-uncertainty' (Barnett, 2004: 258): He explains:

"Being-for-uncertainty does not especially know much about the world nor have at its disposal a raft of skills to deploy in and on the world. Being-for-uncertainty stands in certain kinds of relationships to the world. It is disposed in certain kinds of way. It is characterized, therefore, by certain kinds of disposition. Among such dispositions are carefulness, thoughtfulness, humility, criticality, receptiveness, resilience, courage and stillness." (Barnett, 2004: 258)

This means that mode 1 knowledge, understood as disciplinary-based, inward looking, and conducted in universities by disciplinary specialists within hierarchical and rule-driven frameworks can no longer meet society's (and students') needs. While mode 2 knowledge is problem-driven (rather than institutionally and internally focussed), applied, cross-disciplinary, less hierarchical, and "creative and...bounded by uncertainty" (Barnett, 2004: 251) (and in this sense is an advance on mode 1 knowledge), Barnett argues that it too is limited. This is because in focussing on problems, mode 2

knowledge presupposes that problems can be identified and solutions found, given enough creativity. This is flawed because, Barnett (2004: 251) argues:

"...this is a world in which solutions cannot be designed, in the sense that a problem has been entirely satisfactorily met; there are always repercussions, unintended consequences and loose ends."

He says that mode 2 knowledge is capable of taking students on an epistemological journey, but is not enough to provide an ontological basis for being. Nor are generic skills the solution. While they appear to transcend problems of perpetual change by seeking to develop skills that can be applied across many contexts, and are premised on recognition of the limited shelf life of knowledge and skill, Barnett argues they are a dead end. This is because generic skills are premised on a certainty that these skills can be known, resulting in tightly specified outcomes used as the basis for teaching and assessment. This does not assist students develop the dispositions they need for conceptual and ontological uncertainty (Barnett, 2004: 256).

Against mode 1 and 2 forms of knowledge, and against generic skills Barnett argues for mode 3 knowledge as the basis of the curriculum and pedagogy. He says that this "is a curriculum that is aimed at the transformation of human being; nothing less" (Barnett, 2004: 256-257). Pedagogy itself must be characterised by uncertainty, with knowledge loosely framed, provisional and open-ended, and curriculum must be designed so that it insists students confront and engage with the uncertainties and dilemmas in their field of knowledge, but in ways in which "human being itself is implicated" (Barnett, 2004: 257). He says this pedagogy must engage "students as persons, not merely as knowers", and that while the disciplinary field is still present, its relative importance recedes because "More to the fore here are educational processes that disturb human being as such" (Barnett, 2004: 257). As for knowledge, this has now become a process of active knowing, rather than something that is external to individuals.

There is much in Barnett's account that I agree with, particularly the notion that generic skills are a dead-end, that learning must engage the whole person because it is not enough to focus on knowledge and skills, and that the dispositions he argues are needed for being-in-the-world should be an explicit goal of education. However, I think that Barnett's argument is underpinned by a fundamental incoherence, which leads him to posit individuals who are divorced from the social relations, networks, professional and knowledge communities, *and knowledge* which give their lives meaning, and which help to shape their identity.

WHY A THEORY OF ONTOLOGY IS NEEDED

Even though Barnett does not ground his argument for an ontological turn in a theory of ontology, his approach is nonetheless grounded in an *implicit* theory of ontology, because it is not possible to make claims about social reality without making some assumptions about the nature of reality (Archer, 1995). Claiming that the world is radically unknowable and unpredictable is quite different to arguing that the pace of change has accelerated (even exponentially), that authority and tradition are no longer a reliable guide to action, that the basis of our identities has become more fluid and reflexive, and that in open systems (in nature and in society) unintended and unplanned outcomes will inexorably ensue as a consequence of the interplay of different causal mechanisms. The world is not radically unknowable (and the converse, perfect and certain knowledge is not possible), and outcomes that ensue are not entirely random and contingent. Otherwise all knowledge would be impossible (Archer, 1995).

Barnett's super-complexity seems to be based upon super-relativism. He argues that the cause of uncertainty and anxiety arises from multiple and competing *descriptions* of the world. It is the *descriptions* that "multiply and conflict with each other" (Barnett, 2004: 250). There is now no basis for choosing between descriptions, because "amid supercomplexity, the world is not just radically unknowable but is now indescribable" (Barnett, 2004: 252). This does not allow for the possibility of *testing* some of those descriptions through our *practice* in the world, as a basis for *evaluating* different and competing descriptions. As Sayer (1998: 122) explains that "it does not follow from the fact that [because] all knowledge is fallible, that it is all *equally* fallible."

His approach seems to be based on nominalism, methodological individualism and idealism. It is nominalist because a world in which nothing can make sense is a world in which events and objects are discrete and their connections contingent, as are the outcomes that result. It leads to methodological individualism because the emphasis is on securing an ontological premise for the *individual;* not relationally, but in terms of dispositions which inhere in the individual. Finally, it is idealist because the world is reducible to descriptions, and it seems to lead to Cartesian dualism, in which all that can be certain (in the end) is the self.

Realist, relational theories of ontology provide a more promising basis for developing curriculum and pedagogy. For example, critical realism makes claims about the nature of reality in distinguishing between the real world and our knowledge of it, arguing that what exists does not depend on what we think about it or know about it. While the natural world exists independently of our conceptions of it, and social world is *relatively* independent of our conceptions, our knowledge of both is fallible and provisional because our experience of the world is always theory-laden (though not theory *determined*) (Sayer, 2000). Bhaskar (1998: x) explains that critical realism is premised on "a clear concept of the continued independent *reality* of being..." and "the *relativity* of our *knowledge* ..."

Critical realism argues that the world is complex and stratified. It is a *relational* philosophy because it examines the interplay between different objects and strata, arguing "that the world is characterised by emergence, that is situations in which the conjunction of two or more features or aspects gives rise to new phenomena, which have properties which are irreducible to those of their constituents, even though the latter are necessary for their existence" (Sayer, 2000: 12). Critical realists argue that what is needed in both the natural and social sciences is to identify the *underlying causal mechanisms* that give rise to events in the world, and our experience of them (the empirical dimension). To argue that investigation should be restricted to the level of actions, or even worse, to empirically observable events, is to collapse the question of what exists into a question of what we can know or experience (Sayer, 2000). The world is a complex, open system characterised by the constant interplay of different kinds of causal mechanisms (for example, social class and gender in the social world). This means that the outcomes that ensue are neither wholly random, nor wholly predictable.

This provides a basis for the curriculum because it shifts from teaching students immutable truths to providing a grounding in propositional knowledge which recognises the provisional nature of that knowledge, while providing students with the capacity to *test* such knowledge. It encourages the development of a critical and open-minded way of thinking about knowledge and the aspect of the world which it describes.

It is not reductivist because realism recognises that it is not possible to abstract skills from the individuals who exercise them, nor to conflate the needs of learners with the needs of the enterprises and organisations for which they will work. Traditional policy emphasises supply and demand models of skill – industry needs particular skills and it is the job of education providers to provide them. This abstracts and disembodies skills from the individuals who must exercise them, and results in a narrow focus on skill and knowledge. Supply and demand models do not recognise that the *capacity* to exercise skill and use knowledge productively relies on the full development of the individual – an individual who has the capacity to live within and make connections between their personal, working and civic lives. This is one reason why competency-based training paradigms in VET is particularly odious, because in ignoring the wider contexts in which people live through focussing only on skills for work, the result is an impoverished education that is not able to develop the high-order skills needed for work, let alone for work and life.

The overwhelming consensus around constructivist theories of curriculum (echoed by Barnett) is leading to the downplaying of the importance of propositional knowledge in the curriculum and increasing emphasis on knowledge that is contextual, situational and immediately applicable (Cullen et al.2002). However, such accounts underplay the extent to which contextual and situational knowledge is an emergent property of individual agency, collective agency, the material and social world and propositional knowledge.

A realist and relational ontology regards knowledge as social product that emerges through our practice in the world. Existing knowledge is the outcome of prior agential practice. If individuals are to use this knowledge they must embody it (to a greater or lesser extent) and integrate it with their tacit understandings of the world. Tacit knowledge or expertise includes the knowledge, concepts, ideas

and experiences that we have internalised. Bransford and Schwartz (1999: 69-70) refer to this as 'knowing with', and explain that people "know with' their previously acquired concepts and experiences....By 'knowing with' our cumulative set of knowledge and experiences, we perceive, interpret, and judge situations based on our past experiences".

I think the notion of emergence is very useful for understanding processes of learning, because the individual is always in a process of *becoming* through emergence that arises from practice (Beach, 1999). It is *relational*, and therefore rejects individualistic notions of skill and skill development. It also provides an ontological basis for understanding the world as the outcome of processes that are neither wholly random nor wholly predictable. Knowledge consequently is always revisable, but there are grounds for judging some theories and concepts as more reliable than others. Two implications ensue: the first is that processes of learning must be active, as this is the only way in which knowledge can become embodied and changed in the process; and the second is that curriculum must emphasise the provisional nature of knowledge while providing students with the tools for testing, evaluating and judging knowledge claims.

BERNSTEIN AND THE PEDAGOGIC DEVICE

Bernstein (2000) uses the concept of the 'pedagogic device' to explain that educational discourse is always fashioned by principles that shape the selection of knowledge and skills from the fields in which they were constructed (for example, physics or plumbing) so they can be recontextualised in the field of reproduction – the field of education. In this way, education can be understood not merely as a relay for broader and external power relations. The relay itself – that is, the form that education takes – is also of fundamental importance, because the principle underpinning this relay (the pedagogic device) is itself an outcome of, and shaper of, power relations as they are exercised within education, and also as they mediate power relations external to education. The pedagogic device refers to the 'recontextualising principle' – the principle that is used to recontextualise knowledge and skills into educational discourse (for example, classification of knowledge as strongly or weakly defined by the disciplines and between disciplinary knowledge and 'everyday' knowledge), and to shape the process of practice (how knowledge is framed in terms of pace, sequence and the balance between teacher/student control).

The recontextualising principle is always underpinned by notions of human nature and the place of the individual in society. While not going into Bernstein's analysis about the struggle for control of the pedagogic device by different social interests, Bernstein (2000: 59) argues that the current human capital discourse within the 'official' education and training field is based on a new concept of work and life in which every area of life is perpetually transformed, and that the concept of trainability (or more generously, learning to learn) is now the key principle governing the construction of curriculum and pedagogy. Rather than specific knowledge and skills, the new paradigm calls for 'generic' skills. He explains that the process of perpetual re-formation "Is based on the acquisition of generic modes which it is hoped will realise a flexible transferable potential rather than specific performances" (Bernstein, 2000: 59).

I think that this recontextualising principle is premised on the *market* individual because the skills and knowledges intrinsic to 'trainability' are the skills and knowledges sought by the market. Because the *market* has become the naturalised regulator of human relations (and not vocations or occupations) education and training seeks to produce the market individual, or the economic citizen (Marginson, 1997). These marketable skills and knowledges are thus decontextualised from the vocations in which they were originally embedded. It is not the occupation or vocation that defines what is necessary, it is the market, and it is assumed that because the market transcends most occupations, that these marketable skills also can be unproblematically translated from one context to another. The rhetoric is that vocations change, but the market endures.

However, as Bernstein (2000: 59) explains that the generic capacities to be taught and 'trained' cannot be considered independently of the vocation or occupation for which individuals are preparing, because it is this that provide individuals with their *identity* and the *context* they need to make sense of these 'meta-thinking' and 'meta-learning' strategies. He explains that:

...the ability to respond to such a future [perpetual 'trainability'] depends upon a capacity, not an ability. The capacity to enable the actor to project him/herself *meaningfully* rather than

relevantly, into this future, and recover a coherent past. This capacity is the outcome of a specialised identity and this precedes ability to respond effectively to concurrent and subsequent retraining...lt is not a purely psychological construction by a solitary worker as he/she undergoes the transitions which he/she is expected to perform on the basis of trainability. This identity arises out of a particular social order, through relations which the identity enters into with other identities of reciprocal recognition, support, mutual legitimisation and finally through a negotiated collective purpose. (Bernstein, 2000: 59)

Bernstein (2000: 59) argues that because the concept of 'trainability' is devoid of social content and divorced from vocations which were the basis of identity, there is now no framework in which actors can recognise themselves, except through the "materialities of consumption, by its distributions, by its absences. Here the products of the market relay the signifies whereby temporary stabilities, orientations, relations and evaluations are constructed." He says that in this way knowledge is divorced from knowers, and "from their commitments, their personal dedications" (Bernstein, 2000: 86).

While Barnett is arguing against generic skills as a paradigm, he also divorces individuals from the field of knowledge or the field of practice in which they can recognise themselves and develop their identity. His argument is overly individualistic, because the outcomes he seeks can only be expressed through individual psychological constructions. The dispositions he seeks are worthwhile goals of education, but they cannot be developed in the absence of a framework which gives them meaning and context. Unless reworked notions of a person's calling or vocation are again made explicit goals of education, then the only enduring context in which individuals will be able to recognise themselves is in material consumption and marketised (and fragmented) identities.

DEWEY'S NOTION OF A VOCATION - AN OLD IDEA TO SOLVE A NEW PROBLEM

I think Dewey's notion of *vocation* captures the Bernstein's meaning of *identity*, because it is the capacity to relate knowledge and skills to oneself and the broader world that makes knowledge meaningful. A vocation links a person to the broader notion of an occupation which encompasses the role of that occupation in society, the values that underpin it and the knowledge and skills that are needed to engage in problem solving. Paradoxically, the notion of a vocation becomes *more* important in the context of rapid change. A vocation is predicated on change, and on active engagement by practitioners in creating change. Dewey (1966 (1916): 308) thought of a vocation as a person's *calling:* "To find out what one is fitted to do and to secure an opportunity to do it is the key to happiness." It goes beyond the technical requirements of an occupation and includes:

...the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations, to say nothing of mechanical labor or engagement in gainful pursuits. (Dewey, 1966 (1916): 307)

On the face of it, this approach may seem to be directly counter to prevailing views about the nature of education and globalisation, in which individuals need to prepare for several careers, and in which skills must constantly evolve to keep pace with technological change. The 'generic' view holds only if education and training for work is restricted to narrow notions of specific skill acquisition. People will need to learn several skill sets throughout their lives, but this does not make a vocation. A vocation is the framework in which an individual connects knowledge, skills, attributes, dispositions and values with a deep knowledge and understanding of their profession, and uses this 'connectedness' to define themselves (their identity in their vocation), and as implicit (or tacit) and explicit guides to action in their practice. A vocation provides the framework in which individuals can develop their identities, recognise themselves, and develop the dispositions that Barnett seeks – a way of being in the world that connects different aspects of our lives as a way of navigating uncertain futures.

IMPLICATIONS FOR QUALIFICATIONS, CURRICULUM AND PEDAGOGY

Young (2003) argues that qualifications, curriculum and pedagogy need to be oriented around the vocation or occupation and the communities of interest that underpin that vocation, while insisting on the irreducible role of knowledge in the curriculum. Knowledge and skill is reworked, developed and extended within the context of vocations, and the shared practices that ensue provide the credibility,

authority and basis of trust for qualifications. The 'communities of interest' that underpin qualifications include employers, unions and professional associations, but also education providers and teachers.

The concept of communities of interest is useful for exploring the different contexts of learning that students need to engage in if they are to engage in holistic learning processes. Learning that is entirely based in the work-place or in an education institution is inadequate – both are needed, and students need to be able to make connections between them. This provides the scaffolding students can use to consider propositional knowledge – it is not to be learnt for its own sake or as dead knowledge, but as an intellectual tool to be used in practice. *How* students learn to use and test and evaluate that knowledge must be the focus of the curriculum.

Young argues that qualifications need to depend less on the prior specification of outcomes (the model in Anglophone nations), and more on process-oriented learning outcomes. Anglophone conceptions of qualifications are predicated on a model of qualifications as aggregates of outcomes, not a relational model in which the *connections* between different elements of a qualification matter more. Qualifications need to be emergent outcomes that engage students in an orientation to their vocation, to the knowledge, skills and practices of that vocation, and provide a basis for an emergent identity for the student within their vocation.

CONCLUSION

Barnett's call for an ontological turn in curriculum and pedagogy so that students can develop the dispositions they need for being-for-uncertainty is useful because it forces us to consider the recontextualising principle that should structure education. Being-for-uncertainty needs an anchor, and I've argued in this paper that this anchor can be provided by Dewey's notion of a vocation. A vocation is not reducible to a set of skills – it is a way of being in the world that allows us to make sense of a world that is constantly changing. The knowledge and skills needed in a vocation will change as the world changes. An orientation to a field of practice, to a sense of calling and an 'authentic self' is more likely to result in the dispositions of "carefulness, thoughtfulness, humility, criticality, receptiveness, resilience, courage and stillness" that Barnett (2004: 258) seeks. These attributes are less likely to result if the only enduring orientation available is the market, which values competitiveness, entrepreneurship and the commodification of knowledge – which severs knowledge from inner commitments by focussing on the exchange value of knowledge, while its use-value is contingent and ephemeral.

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